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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,715	03/14/2001	Bowie G. Keefer	6454-58227	5818

7590 01/30/2004

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EXAMINER

LE, HOA VAN

ART UNIT PAPER NUMBER

1752

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,715

Applicant(s)

KEEFER ET AL.

Examiner

Hoa V. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Continuation of Disposition of Claims: Claims pending in the application are 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93.

Continuation of Disposition of Claims: Claims rejected are 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93.

This application is before the examiner for consideration on the merits.

I. The record shows that this application is related to application Serial No. 09/780,184.

The claims in both applications are not patentably different or distinct.

II. The record also shows that application Serial No. 09/780,184 is also related to application Serial No. 09/780,079. Applicants fail to make a record in this application for a timely consideration. The claims in application Serial No. 09/780,079 are in a process for publication in to a patent not available for consideration. The originally filed claims 1-43 are not found to be patentably different or distinct from the claims in this application. The patented claims may be amended but are not available for consideration.

III. Applicants fail to make a record that there is another related claimed invention in application serial No. 10/286,400 for a timely consideration.

IV. The instant claims have been amended. If a new mater is found, please see the authority stated in *Tronzo v. Biomet Inc.*, 41 USPQ2d 1403.

V. There are multiple groups of independent claims. They have not been considered as patentably different or distinct. Accordingly, no restriction, separation of search or consideration is made unless applicants show or urge otherwise in the next response to this Office action in

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order for it to be considered timely. A restriction will be made for the record as shown or urged by applicants.

VI. The claimed invention has been considered. Applicants prior art submissions filed on 04 February 2002, 26 October 2002 and 16 October 2003 have been considered. It is found that no embodiment or combined embodiments are new and patentably different and distinct from the teachings and suggestions in the submitted references on the record. The claims are found to be no more than an expected combination of the known materials and their usefulness for the combined and expected result of obtaining an efficiency of an electrical power of an electrochemical fuel cell to one having ordinary skill in the art. The record shows that applicants have not shown or provided an evidence to the contrary for a patentability of an embodiment or combined embodiments.

VII. Claims 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of the pending claims of copending Application No. 09/780,184 as stated by applicants. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

VIII. Claims 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the allowed claims in the allowed

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application Serial No. 09/780,079. Although the conflicting claims are not identical, they are not patentably distinct from each other.

IX. Claims 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of the pending claims 32-54 and 61-68 of copending Application No. 10/286,400 as stated by applicants. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

X. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 113 (broadest as the main invention) 114-116, 101, 104-105, 33-36,39-40, 42-43,46, 51-52,82-85, and 92-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiro (in the Abstract of Japanese Patent Publication No. 62278770 A as submitted. Applicants are requested to provide a sufficient to full disclosure in English language to this pertinent applied primary reference) alone or with Keefer et al publication on 23 April 1995 with CA 2,109,055 Patent as an equivalence and Keefer publication on 04 November 1991 with CA 2,016,045 Patent as an equivalent.

It is conventional and well known in the art to obtain an electrical power from a fuel cell operating on an hydrogen fuel and oxygen oxidation evidence can be seen Shiro. Shiro also seeks

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to improve an efficiency of the operation by remove carbon oxide from the feeding fuel hydrogen line as that in the instant claimed invention. Please see the whole disclosure of each of the applied references, especially in the limited Abstract as submitted. It is also conventional or well known in the art to seek more efficient result by applying a treating apparatus and process more the one or in series as that by applicants. Please also see the abstract. Since Shiro disclosed, teaches and suggest the main and essential embodiments of the claimed invention, the claims are found to be rendered prima facie obvious by Shiro.

The claims with one additional embodiments or more have been considered. But each and every one of them are found to be disclosed, taught and suggested in one or more than one submitted references. Evidence can be seen in Keefer et al publication on 23 April 1995 with CA 2,109,055 Patent as an equivalence at pages 32:15 to 33:28 for types of hydrogen generations and hydrogen separating processes and apparatuses. Keefer publication on 04 November 1991 with CA 2,016,045 Patent as an equivalent at page 63:16 to 64:12 for recycling a hydrogen purifying process and apparatus to obtain more high hydrogen concentration. Since the above references are related to the claimed embodiments with respect to obtain an efficient electrical power from an electrochemical fuel cell operating with hydrogen fuel and oxygen oxidation and processes and apparatuses for obtaining and purifying hydrogen in high concentration, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combined the known materials and their usefulness for the combined and expected results as disclosed, taught and suggested by the applied references. No embodiment or combined embodiments are new and patentably different or distinct from the submitted references on the record. However, a claim invention may be patentable if applicants could be able to show or

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provide an evidence that an embodiment is new or combination of embodiments would be able to produce an unusual or unexpected result since the application has been considered but no showing of an unusual or unexpected result could be shown or provided by applicants for a patentability of the claimed invention on or for the record. Applicants should show an evidence to the contrary.

XI. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached on 6:30AM-5:00PM, M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone numbers of the examiner is 571- 273-1332. Since there is a newly electronic filing procedure for all initial communicating papers and all responses to an Office action, the examiner fax phone number is not for use to receive any fax in response to an Office action. Applicant is requested and required to send all initial communicating papers and all response to Office action to a central paper or fax receiving center for an electronic scanning procedure.

Applicants may file a paper by (1) fax with a central facsimile receiving number 703-872-9306,

(2) mail with a central mail receiving address:

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Crystal Plaza Two, Lobby, Room 1B03

Arlington, VA 22202

For any related question please call Customer Service at 703-308-1202.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Hoa V. Le
Primary Examiner
Art Unit 1752

HVL
21 January 2004

HOA VAN LE
PRIMARY EXAMINER
Hoa Van Le